## PROJECT DESCRIPTION THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNALS AT THE INTERSECTIONS OF PENNSYLVANIA/MAUGANS AVENUE AND MACK TRUCK ROAD/MAUGANS AVENUE. NEW TRAFFIC SIGNALS WILL BE CONSTRUCTED AT THE INTERSECTIONS OF MAUGANS AVENUE AND THE INTERSTATE 81 RAMPS WITH FOUNDATIONS AND CONDUIT PLACED FOR FUTURE SIGNALS AT MAUGANS AVENUE AND CRAYTON BOULEVARD. MAUGANS AVENUE IS ASSUMES TO RUN IN A EAST-WEST DIRECTION **INTERSECTION OPERATION** A SYSTEM CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS LOCATION. THE INTERSECTION WILL OPERATE IN A FULLY ACTUATED MODE USING EIGHT (8) NEMA PHASES. EXCLUSIVE/PERMISSIVE LEFT TURN PHASING WILL BE PROVIDED FOR ALL APPROACHES EXCEPT NORTHBOUND PENNSYLVANIA AVENUE WHICH HAS DUAL PROTECTED LEFTS. AUDIBLE PEDESTRIAN SIGNALS SHALL BE INSTALLED AROUND THE INTERSECTIONS AS SHOWN. SIDEWALKS WITH ADA RAMPS AND DETECTABLE WARNING SURFACE MATERIAL WILL ALSO BE INSTALLED. AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED WHERE CROSSWALKS ARE SHOWN. **CONTROLLER REQUIREMENTS** INSTALL A FULL-TRAFFIC ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR CHANNEL, INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES IN A NEMA SIZE "6" BASE MOUNTED CABINET. PHONE DROP UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY DAVE SHRADER OF THE WASHINGTON COUNTY HIGHWAY DEPARTMENT AT 240-313-2715 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SHRADER THE NEAREST STREET ADDRESSES, ZIP CODES, AND PHONE NUMBERS FOR EACH INTERSECTION. **MAINTENANCE OF TRAFFIC**

PROJECT CONTACTS					
THE CONTACT PERSONS FOR THE WASHINGTON COUNTY ENGINEERING DEPARTMENT AS AS FOLLOWS:					
MR. TBD	MR. DAVE SHRADER				
PROJECT MANAGER	SIGNAL OPERATIONS				
PHONE: 313-240-2417	PHONE: 240-313-2720				
MR. DAVID A. MASON	MR. ROBERT SLOCUM				
DESIGN ENGINEER	DEPUTY CHIEF ENGINEER				

PHONE: 240-313-2418

PHONE: 240-313-2408

MR. GEORGE H. SMALL

MR. TONY CRAWFORD

MR. ROBERT ROWAN UTILITY ENGINEER

MR. RICHARD DAFF, SR.

MR. ROBERT SNYDER

MR. ED RODENHIZER

MR. EUGENE BAILEY

MR. MIKE STOCKER

CHIEF, SIGN OPERATIONS

SIGNAL SHOP WAREHOUSE

CHIEF TRAFFIC OPERATIONS

ASSISTANT DIVISION, CHIEF TRAFFIC OPERATIONS

CHIEF, SIGNAL OPERATIONS

(301) 729-8444

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MR. JOHN TRUE

CONTACT PERSONS FOR MD-SHA ARE AS FOLLOWS:

ASSISTANT DISTRICT ENGINEER - CONSTRUCTION

ASSISTANT DISTRICT ENGINEER - MAINTENANCE

CONTACT PERSONS FOR OOPS ARE AS FOLLOWS:

ASSISTANT DISTRICT ENGINEER - TRAFFIC

THE TRAFFIC CONTROL PLANS PROVIDED WITHIN THIS SET OF CONSTRUCTION PLANS SHALL BE USED FOR THE PROJECT.

NO.	DESCRIPTION OF LOCATION	STATION	OFF
45	FUTURE INTERCONNECT	51+51.35	37+5
46	FUTURE INTERCONNECT	53+51.35	37+5
47	FUTURE INTERCONNECT	55+51.35	37+5
48	FUTURE INTERCONNECT	57+51.35	37+5
49	FUTURE INTERCONNECT	58+73.36	37+5
:50	FUTURE INTERCONNECT	59+50.09	34.0
51	FUTURE INTERCONNECT	62+00.70	33.9
<b>52</b> .	FUTURE INTERCONNECT	61+48.62	33.9
53	PA.AVE @ POLE C	62+16.46	40.2
54	PA AVE @ POLE B	63+25.32	56.7
55 <sup>°</sup>	PA AVE @ P-5	62+74.65	62.1
56	PA AVE @ CONTROLER	62+74.13	69.2
57	PA AVE @ POLE A	63+52.50	43.79
58	PA AVE @ P-6	63+59.30	63.5

**EQUIPMENT LIST "A"** 

QUANTITY

2 EACH

**EQUIPMENT LIST "C"** 

SIGNAL POLE LOCATIONS

CONTROLER BOX LOCATIONS'

STATION

63+54.15

63+23.10

62+18.18

63+30.07

62+76.17

63+57.29

STATION

62+76.62

OFFSET

41.54' RT

58.49' LT

42.50' LT

50.14' LT

60.80' RT

61.96' RT

OFFSET

**DESCRIPTION OF LOCATION** 

PA AVE - POLE A

PA AVE - POLE B

PA AVE - POLE C

PA AVE - POLE P-3

PA AVE - POLE P-5

PA AVE - POLE P-6

DESCRIPTION OF LOCATION

PENNSYLVANIA AVENUE

	'STATION/OFFSET LOCATIONS ARE BASED ON THE
	APPROXIMATE CENTER OF THE HANDHOLE.
	2 STATION/OFFSET LOCATIONS ARE BASED ON THE
•	CENTER OF THE POLE.
	STATION/OFFSET LOCATIONS ARE BASED ON THE
	CENTER OF THE CONTROLLER BOX.

, •	NT LIST "A"	EQUIPME	NT LIST "B"
N. EQUIPMEN	T TO BE SUPPLIED BY THE COUNTY	B. EQUIPMEN	NT TO BE FURNISHED
QUANTITY 1 EACH	DESCRIPTION  EIGHT PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION  MONITOR HOUSED IN NEMA SIZE "6" BASE MOUNTED CABINET	QUANTITY LUMP SUM	DESCRIPTION  MAINTENANCE OF
129 S.F.	SHEET ALUMINUM SIGNS TO CONSISTS OF:	20 C.Y.	TEST PIT EXCAVA
	- 2 EACH R3-2 SIGN (30 IN. X 30 IN.) - MAST ARM MOUNT - 5 EACH R3-5L SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT	LUMP SUM	REMOVE AND DIS
	- 3 EACH R3-5R SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT - 1 EACH S-1 SIGN (16 IN. X 54 IN.) - MAST ARM MOUNT	1 EACH	STEEL POLE WITH
	- 1 EACH S-2 SIGN (32 IN. X 60 IN.) - MAST ARM MOUNT - 1 EACH S-3 SIGN (32 IN. X 60 IN.) - MAST ARM MOUNT	1 EACH	STEEL POLE WITH
	- 2 EACH M1-4 N SIGN (24 IN. X 24 IN.) - MAST ARM MOUNT - 2 EACH M1-4 F SIGN (36 IN. X 36 IN.) - MAST ARM MOUNT	1 EACH	STEEL POLE WITH
	- 2 EACH M7-5 N SIGN (21 IN. X 15 IN.) - MAST ARM MOUNT - 2 EACH M7-5 F SIGN (30 IN. X 21 IN.) - MAST ARM MOUNT	2 EACH	STEEL PEDESTAL
	- 6 EACH S-8 SIGN (9 IN. X 12 IN.) - POLE MOUNT	13 C.Y.	CONCRETE FOR S
2 EACH	VIDEO INTERFACE EQUIPMENT: 1-4 CAMERAS	620 L.F.	NO. 6 AWG STRAN
		1520 L.F.	3 INCH SCHEDULI
		300 L.F.	3 INCH SCHEDULE
		100 L.F.	4 INCH SCHEDULE
		300 L.F.	4 INCH SCHEDULE
· ·		50 L.F.	2 INCH SCHEDULE
w.		1 EACH	ELECTRICAL UTIL
OHDMEN	NT LIST "C"	80 L.F.	ELECTRICAL CABI
.QUIP WILL	TI LIGI C	4 EACH	
. EQUIPMEN	T TO BE REMOVED AND RETURNED TO THE COUNTY/SHA.		FURNISH AND INS
COUNTY/S	HA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILLARY EQUIPMENT FROM THE CONTROLLER	14 EACH	FURNISH AND INS
CABINET.	THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME PROPERTY ONTRACTOR.	127 S.F.	INSTALL OVERHE
or the oc	ONTRACTOR.	8 EACH	VIDEO DETECTION
		4 EACH	CONTROL CABLE,
		2 EACH	CONTROL CABLE,
		2 EACH	CONTROL CABLE,
		2 EACH	10 FT BREAKAWAY
		6 EACH	GROUND ROD - 0.
4		12 EACH	8 INCH LED VEHIC
·		54 EACH	12 INCH LED VEHIC
·		4 EACH	12 INCH PEDESTR - LED COUNTDO
		2 EACH	12 INCH PEDESTRI - LED COUNTDO
		870 L.F.	ELECTRICAL CABL
-		50 L.F.	ELECTRICAL CABL

2	EGOIPME	NI LISI B	
	B. EQUIPMEN	IT TO BE FURNISHED AND OR INSTALLED BY THE CONTRACTOR	
	QUANTITY	DESCRIPTION	
	LUMP SUM	MAINTENANCE OF TRAFFIC	
,	20 C.Y.	TEST PIT EXCAVATION	,
	LUMP SUM	REMOVE AND DISPOSE EXISTING MATERIAL AND EQUIPMENT	
	1 EACH	STEEL POLE WITH A 50 FT. SPECIAL MAST ARM	
	1 EACH	STEEL POLE WITH A 38 FT. AND A 70 FT. SPECIAL MAST ARM	
	1 EACH	STEEL POLE WITH A 38 FT. SPECIAL MAST ARM	
	2 EACH	STEEL PEDESTAL POLE	
	13 C.Y.	CONCRETE FOR SIGNAL FOUNDATIONS	
	620 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	
•	1520 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	
	300 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED	•
	100 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	
2	300 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED	
	50 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	
	1 EACH	ELECTRICAL UTILITY SERVICE EQUIPMENT W/ 200 AMPS METER PEDESTAL	
	80 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN	,
	4 EACH	FURNISH AND INSTALL OPTICOM EMERGENCY VEHICLE PRE-EMPTION DETECTOR	
	14 EACH	FURNISH AND INSTALL HANDHOLE	
	127 S.F.	INSTALL OVERHEAD AND POLE MOUNTED SIGN	, ,
	8 EACH	VIDEO DETECTION CAMERA	
	4 EACH	CONTROL CABLE, 200 FT, VIDEO CAMERA TO CONTROLLER	
2	2 EACH	CONTROL CABLE, 250 FT, VIDEO CAMERA TO CONTROLLER	
	2 EACH	CONTROL CABLE, 350 FT, VIDEO CAMERA TO CONTROLLER	
	2 EACH	10 FT BREAKAWAY PEDESTAL	, * * ;
, .	6 EACH	GROUND ROD - 0.75 INCH DIAMETER X 10 FT LENGTH	
	12 EACH	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION, MAST ARM MOUNTED	
	54 EACH	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION, MAST ARM MOUNTED	
	4 EACH	12 INCH PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNTED - LED COUNTDOWN	
	2 EACH	12 INCH PEDESTRIAN SIGNAL HEAD SECTION PEDESTAL MOUNTED - LED COUNTDOWN	
	870 L.F.	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)	
	50 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	
	1850 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	
	1520 L.F.	ELECTRICAL CABLE - 24 CONDUCTOR (NO. 14 AWG)	
	6 EACH	PUSHBUTTON AND SIGN	
	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT	
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APPROVALS ANT - TRAFFIC ENGINEERING DESIGN DIVISION

**SHA No.: BW707M83** Maughan's Avenue: I-81 to US 11

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION **OFFICE OF TRAFFIC & SAFETY** TRAFFIC ENGINEERING DESIGN DIVISION

MAUAGANS AVENUE / LONGMEADOW ROAD AND PENNSYLVANIA AVENUE

TRAFFIC SIGNAL PLANS

ANS AVE. & PENNSYLVANIA RECONSTRUCTION NG.

> SCALE **AS SHOWN** SHEET NO.

**SP-11** 

**PROJECT NO. 10-140** 

DWG. No. 68 OF 146